UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

June 16, 2015

MEMORANDUM

SUBJECT: Impromptu visual cap inspection at the San Jacinto River Waste Pits superfund site

FROM: Valmichael Leos, Remedial Project Manager
LA/NM/OK Remedial Section (6SF-RL)

TO: File

I. PURPOSE

This memorandum is to document the observations of the quarterly cap inspection at the San Jacinto River Waste Pits superfund site (Site) conducted on January 15, 2015. The purpose of the site visit was to inspect the completed removal work which involves a temporary armor cap being used to stabilize the release of dioxin / furan hazardous waste from releasing into the San Jacinto River. Due to increasing concerns from local stakeholders about the integrity of the temporary armored cap from heavy rains and flooding in the area, an impromptu visual cap inspection was conducted.

II. BACKGROUND

The Site consists of impoundments, approximately 14 acres in size, built in the mid-1960s for the disposal of paper mill wastes and the surrounding areas containing sediments and soils potentially contaminated by the waste materials that had been disposed of in these impoundments. The impoundments are located immediately north of the I-10 bridge and on the western bank of the San Jacinto River in Harris County, Texas. A time-critical removal action was completed in July of 2011 to stabilize the pulp waste material and sediments within the impoundments to prevent the further release of dioxins, furans, and other chemicals into the environment. The removal consisted of placement of an armor rock cap over a geotextile bedding layer and an impermeable geomembrane in some areas.

In accordance with the operations, monitoring, and maintenance (OMM) plan for the Site, the respondents are required to conduct quarterly cap inspections starting January 2012 for the first two years, semi-annually from years three to five, and annually after year five. In addition to the regularly scheduled cap inspections, impromptu inspections may be conducted if a major storm event occurs at or near the site that could adversely affect the protectiveness of the removal action. In addition to the OMM plan, an enhancement work plan dated November 2013 was submitted and approved by EPA that details armor cap improvements with seven distinct areas (see attached Figure 1) improving the slope and material gradation.

The site inspections involve visually inspecting the armor cap for areas of erosion, damage, wear and tear of any exposed geotextile fabric or LLDPE geomembrane liner, topographic surveys, manual probing to ensure the cap maintains the prescribed design thickness, and chemical analysis of surrounding pore water. In addition to land and water based inspections of the cap, visual inspections of the site security and perimeter fencing is also conducted. The respondents are required to conduct topographic surveys of the armor cap to ensure a minimum design thickness of the armor cap. If any deficiencies are discovered during the site inspection by either the respondents or the EPA, response procedures for repair have been established in the OMM plan.

III. CONCULSIONS

On June 15, 2015, EPA RPM Leos conducted a site visit to document observations at the San Jacinto River Waste Pits superfund site. During the site visit it was noted that the Site security fencing visible and intact. Site signage placed along the fencing perimeter was visible and intact with the exception of the southern gate located south of I10 which has an overgrowth of weeds and shrubs obstructing part of the signage (See Photo 8).

In addition to inspecting the overall integrity of the armor cap, seven additional areas (see Figure 1) were inspected where additional rock was placed and the slopes flattened to provide more stability and strength per the enhancement work plan dated November 2013. The section of the armor cap located above water level (western cell) was observed to be intact with no areas of cap erosion evident (see Photo 1-2). It was noted that several small areas of minor cap erosion along the central berm were evident by patches of the geotextile filter fabric exposed (See Photos 3-5).

Due to the recent rains and flooding in the area, it was noted that a higher abundance of vegetative growth needing maintenance and control is needed (See Photo 7). It was noted during the cap inspection that prior vegetative maintenance and control was evident due to the brown and dead weeds, however more aggressive treatment and additional applications are warranted due to the increasing appearance of new vegetative growth.

A review of the respondents TCRA monthly monitoring report dated June 15, 2015, have indicated no major problematic areas needing cap repair or maintenance. However, due to this most recent visual cap inspection conducted on June 15, 2015, several areas of the armor cap are needing immediate attention for minor deficiencies. The first item needing immediate attention is the placement of additional armor material along the small areas identified in this report, second, an additional application of weed control and maintenance is needed in areas with new vegetative growth, and lastly, a site walkthrough and removal of any vegetative growth that might obstruct site signage along the entire perimeter is needed.

Enclosure:- Site Inspection Photos and Figure One

Site Inspection Photos 8 of 8
& Figure One

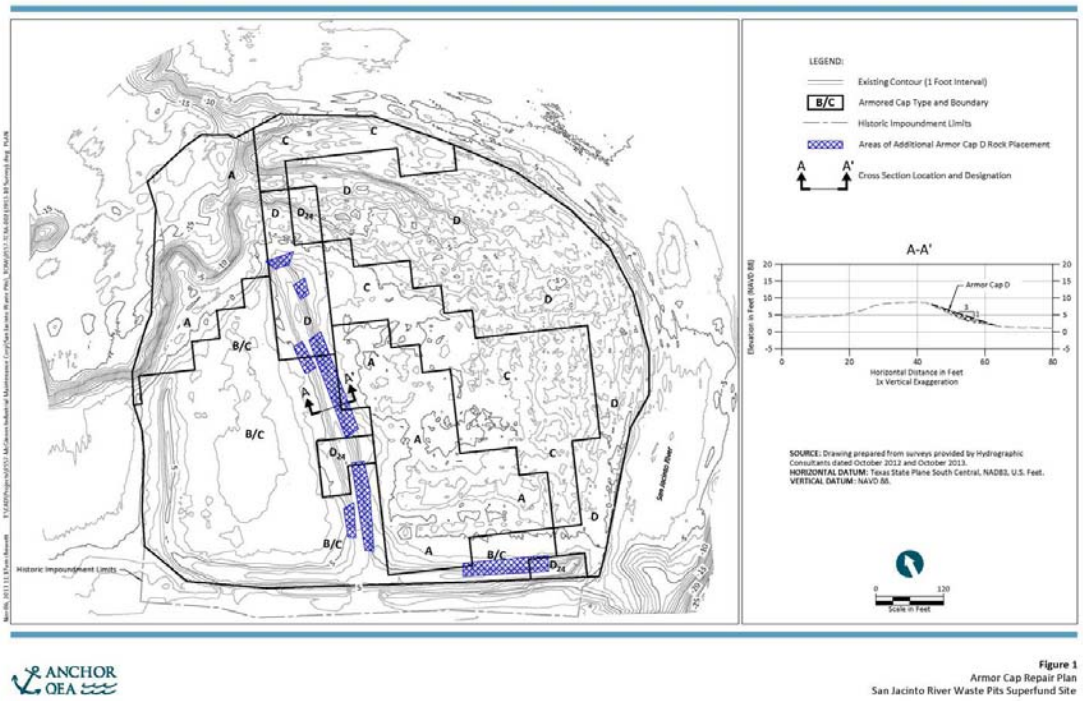

Figure 1- Areas covered with additional rock and flatten slopes from November 2013 Armor Cap Enhancement plan

Photo 1- View of southern berm (looking west) and Western Cell surrounded by vegetative growth along San Jacinto River

Photo 2- View of western berm along western cell (looking north towards San Jacinto River).

Photo 3- Magnified view of one area along central berm with geotextile fabric exposed

Photo 4- Areas along central berm (identified with orange paint) where geotextile fabric is exposed

Photo 5- View of small area (note scale with size 10 shoe) where geotextile fabric is exposed located along the northern part of central berm and east along eastern berm.

Photo 6- View of eastern cell looking south east towards I10

Photo 7- View of vegetative growth along eastern berm.

Photo 8- View of vegetative growth obstructing site signage near southern gate south of I10.